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MISSION STATEMENT

American Association of Zoo Keepers, Inc.

The American Association of Zoo Keepers, Inc. exists to advance excellence in the animal keeping profession, foster effective communication beneficial to animal care, support deserving conservation projects, and promote the preservation of our natural resources and animal life.

ABOUT THE COVER

This month's cover features a black sea nettle (*Chrysaora achlyos*). The photo is courtesy of Omaha's Henry Doorly Zoo and Aquarium®. The black sea nettle is a species of jellyfish that develops a very large, dark purple, almost black bell. This species can achieve a bell diameter of three feet and have tentacles 25 feet long, making it the largest marine invertebrate discovered in the 20th century. Such a large jelly makes spotting this species a unique experience. Scuba divers sometimes see this species in waters off the California coast around June and July.

With its 24 fishing tentacles, the black sea nettle serves as an important predator in the Pacific Ocean. This species is constantly feeding on a variety of prey items that can include planktonic crustaceans, pelagic tunicates and mollusks, ctenophores, fish eggs and larvae, and even other jellies.

Although this species in captivity will never reach the sizes you would see in the wild, it still requires specialized care. As a young jelly that is only millimeters in diameter, this jelly has to be fed very small live food items, such as rotifers, in order to grow. As it matures, this species also needs to be fed moon jellies to achieve a healthy bell size. Other food items include krill and baby brine shrimp.

On behalf of the AAZK Board and Staff, congratulations to the 2013 AAZK award winners, and thank you to those who nominated your colleagues. The October issue of AKF is always special, because it highlights the outstanding work of the leaders in the animal keeper profession. Congratulations, and thank you for all that you do!

Articles sent to **Animal Keepers' Forum** will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for **AKF**. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the Editor. The Editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or e-mail contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone (330) 483-1104; FAX (330) 483-1444; e-mail is shane.good@aaazk.org. If you have questions about submission guidelines, please contact the Editor. Submission guidelines are also found at: aaazk.org/akf-submission-guidelines/.

Deadline for each regular issue is the 3rd of the preceding month. Dedicated issues may have separate deadline dates and will be noted by the Editor.

Articles printed do not necessarily reflect the opinions of the **AKF** staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

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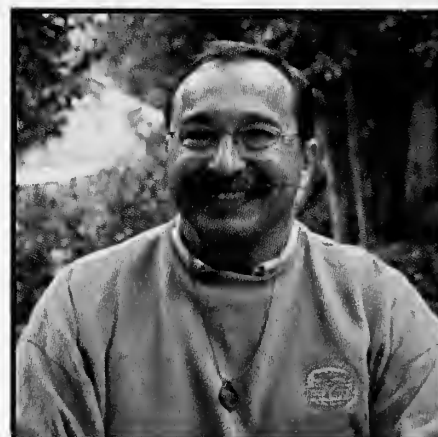
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FROM THE PRESIDENT

"No one who achieves success does so without acknowledging the help of others. The wise and confident acknowledge this help with gratitude." – Unknown

"Someone's sitting in the shade today because someone planted a tree a long time ago." – Warren Buffett

Each year, during National Zoo Keeper Week, I receive e-mails from keepers around the country detailing some of the ways that their institutions recognize their hard work and dedication. Some institutions provide an array of breakfast spreads while others provide luncheons, donuts, and other well-appreciated edible delights. Off-site activities include keeper socials, happy hours, and even National League baseball games (with keepers on the field for opening ceremonies!). When you get a chance, look up "National Zoo Keeper Week" on Google®, using the news tab and you'll see some of the many ways that institutions all over the country celebrate our profession. Without a doubt, we appreciate all of the many things that our institutions do to honor our profession during this annual event.



This year, however was different; something completely unexpected. Recently, I received a copy of a letter that was sent to the AAZK Administrative Office in Topeka. The letter was from the Executive Director of the Brandywine Zoo. A portion of the letter reads as follows:

August 13, 2013
The Delaware Zoological Society
Supporting the: BRANDYWINE ZOO

AAZK Administrative Offices
3601 SW 29th Street
Suite 133
Topeka, KS 66614-2054

To Whom It May Concern:

In recognition of National Zoo Keeper Week, the Board of Directors of the Delaware Zoological Society recently voted to purchase AAZK memberships for all the keepers at the Brandywine Zoo.

This struck me as such a profound gesture. The Board of Directors at the Delaware Zoological Society, in recognition of their National Zoo Keeper Week, purchased memberships (professional and affiliate) for the entire keeper staff at the Brandywine Zoo. It was a gift that spoke of commitment and worth; the provision of an opportunity for Brandywine keepers to grow in their profession, exemplifying an institution's desire to place a value on investing in the future of their staff, investments which will benefit the institution, the keepers and importantly, the animals at Brandywine Zoo.

When an institution like Brandywine Zoo invests in the professional development of its staff, it promotes the organization's belief in its staff and their ability to learn, grow, and network for the greater good of the animals they care for. This is a great example that other institutions and AAZK Chapters should consider when addressing the professional development needs of keepers.

On behalf of the American Association of Zoo Keepers, I would like to thank Brandywine Zoo and the Board of Directors at the Delaware Zoological Society for placing such a great value on their keepers. We would also like to express our gratitude for choosing the American Association of Zoo Keepers as the resource for that investment.

As always, I welcome your thoughts and input. E-mail me at bob.cisneros@aazk.org ; I would love to hear from you. Drop me a line, I promise to write back.

Respectfully,

Bob Cisneros

"Some men see things as they are and say why - I dream things that never were and say why not."
-- George Bernard Shaw



Post your
upcoming events
here - e-mail
shane.good@aazk.org

COMING EVENTS

November 10-14, 2013 Zoological Association of America (ZAA) Annual Conference

Phoenix, AZ
For more information go to
zaa.org. Deadline for abstracts
is April 1, 2013.

November 11-15, 2013 Training and Enrichment Workshop for Zoo and Aquarium Animals

Moody Gardens, Galveston, TX
For more information contact:
dolsen@moodygardens.com

**February 5-8, 2014
22nd Annual International
Association of Avian Trainers
and Educators Conference**
Dallas, TX 2014: Texas Fly 'Em
For more information go to:
IAATE.org

**March 15-19, 2014
Otter Keeper Workshop**
Denver, CO
Hosted by Denver Zoo and
Denver Downtown Aquarium.
For more information go to:
otterkeeperworkshop.org



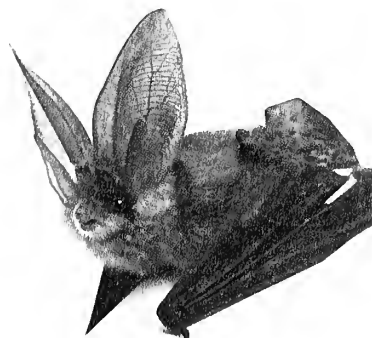
**March 22-28, 2014
AZA Mid-Year Meeting**
Memphis, TN
For more information go to:
AZA.org/midyearmeeeting/



**April 13-18, 2014
ABMA's 14th Annual Conference**
Dallas, TX
For more information go to:
theabma.org

**September 8-12, 2014
AAZK National Conference**
Orlando, FL
Hosted by
Disney's Animal Kingdom
For more information go to:
greaterorlandoazk.org

**October 6-8, 2014
3rd International
Flamingo Symposium**
San Diego, CA
Hosted by SeaWorld San Diego
For more information contact
laurie.conrad@SeaWorld.com





Trees for You and Me 2013-2014 AAZK Chapter Competition



Hello AAZK Chapters! It is time again for some friendly competition between Chapters to help polar bears and climate change by raising the funds to plant trees. This year's competition runs 1 October 2013 to 1 March 2014. The main focus of Trees for You and Me has changed slightly and is drawing attention to the benefits of urban tree-planting locally or globally, and the associated educational programming and awareness such events create. Each Chapter will have the choice again of putting the money raised towards a local tree planting initiative, donating to a tree planting conservation organization (preferably a rain forest), or donating to the Polar Bear Forest® on Polar Bears International®'s (PBI) website.

Each AAZK Chapter must register at AAC@PolarBearsInternational.org to enter the competition. AAZK Chapters have until 31 December 2013 to register. Remember the earlier you register the more time you have to raise funds to plant trees and help polar bears.

Each participating AAZK Chapter is responsible for following AAZK National's requirements for reporting on funds raised for conservation in the re-chartering packet. PBI requires that each AAZK Chapter report about the planting activity with a photo and description on PBI's new community, My Planet, My Part. Acres for the Atmosphere projects or donations to tropical forests planting should be completed within six months of the campaign fundraiser close. (Reports to My Planet, My Part will occur between April-November 2014.)

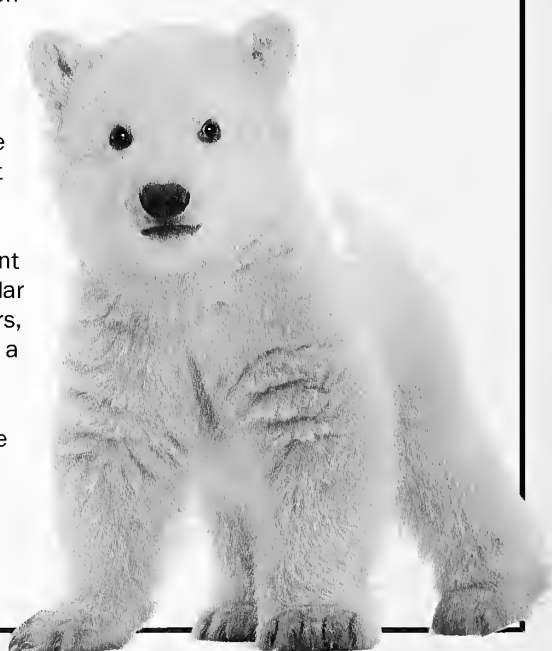
A challenge prize will be awarded to the AAZK Chapter with highest amount of funds reported at the midway point (yet to be determined). The Chapter with the lead will receive a bush to plant in a public location that is a native species to that area with a purchase value from a commercial nursery of no more than \$25.

First place will be awarded to the AAZK Chapter with the most funds reported to PBI by midnight PDT 1 March 2014. The winning Chapter will be announced 5 March 2014. The Chapter will receive a tree to plant in a public location that is a native species to that area with a purchase value from a commercial nursery of no more than \$100.

So, start brain-storming on ways to educate your local community and raise funds to plant trees and make a global difference. Projects in the past have included bake sales, polar plunges, miniature golf events, garage sales, silent auctions, fun runs, spaghetti dinners, car washes, recycling programs, even a night out at your local hang out that allows a 50/50 raffle as a final fundraiser, and more.

Good luck to all the AAZK Chapters and let the competition begin! Please contact me at christy.mazrimas-ott@aazk.org or christy.mazrimas-ott@czs.org with any questions.

Christy Mazrimas-Ott
Trees for You and Me, Chairperson



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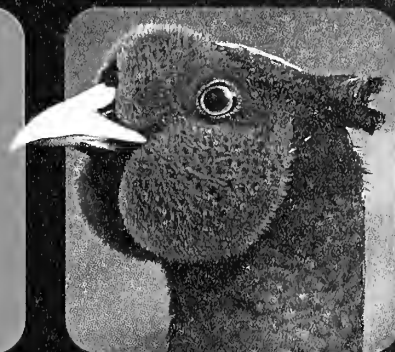
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What Day Is It?

January

5-National Bird Day
10-Save the Eagles Day
13-International Duck Day
16-Appreciate a Dragon Day
20-Penguin Awareness Day
21-Squirrel Appreciation Day
31-International Zebra Day

February

Adopt-a-Rescued Rabbit Month
1-Serpent Day
2-World Wetlands Day
2-Hedgehog Day
16-World Pangolin Day
18-World Whale Day
27-International Polar Bear Day

March

Adopt-a-Rescued-Guinea Pig Month
Dolphin Awareness Month
1-National Pig Day
14-Learn About Butterflies Day
14-Save a Spider Day
17-Buzzard Day
20-World House Sparrow Day
20-World Frog Day
27-Manatee Appreciation Day

April

National Frog Month
4-World Rat Day
8-Zoo Lovers Day
14-National Dolphin Day
20-International Cuckoo Day
25-World Penguin Day
27-World Tapir Day
27-National Crow and Raven Day
29-Save the Frogs Day

May

2nd Saturday-International Migratory Bird Day
4th Saturday-Tree Kangaroo Awareness Day
16-Endangered Species Day
23-World Turtle Day
28-Whooping Crane Day
29-International Tiger Day
29-Pink Flamingo Day
31-World Parrot Day

June

Zoo and Aquarium Month
1st Saturday-International Ungulate Day
8-World Oceans Day
13-International Pigeon Day
18-Day of the Condor

July

3rd Week-National Zoo Keeper Week
16-World Snake Day
29-Global Tiger Day

August

4-International Owl Awareness Day
7-Sea Serpent Day
10-World Lion Day
14-World Lizard Day
19-World Orangutan Day

September

1st Saturday-National Hummingbird Day
4th Saturday- Rabbit Day
4-International Vulture Awareness Day
4-National Wildlife Day
8-National Iguana Awareness Day
22-Elephant Appreciation Day
22-World Rhino Day
22-28-Sea Otter Awareness Week
29-National Goose Day

October

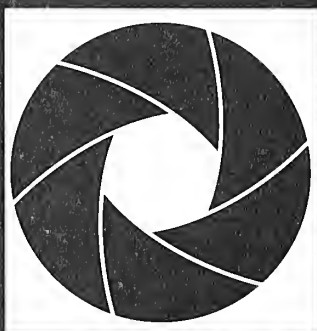
Bat Appreciation Month
Croctober Month
3rd Week-Wolf Awareness Week
2-World Farm Animals Day
4-World Animal Day
10-Bat Day
20-International Sloth Day
26-Mule Day

November

13-Orangutan Awareness Day-Omaha

December

4-International Cheetah Day
27-National Visit the Zoo Day



Attention all photographers, the **AKF** needs your photos as potential cover photos and special feature photos throughout the issue. All photos need to be high resolution, 2625 x 3375 pixels or greater, and 300 dpi or greater in resolution. All photographers will need to submit a photo release form that can be found at aazk.org/animal-keepers-forum/aazk-photo-model-release-form. Photos that clearly depict facility logos and behind-the-scenes shots will need permission of the facility to be used.

Subjects for the photos should revolve around animal husbandry, conservation, education/interpretation, professional development, significant achievements in the industry (births, exhibits, staff, etc.), and can also include some of the more humorous or unique situations that we all come across each day in our occupations. Captions for each photo should also be submitted.

2013 AAZK Award Recipients



Lifetime Achievement Awards

Barbara Manspeaker

This award is in recognition of her outstanding commitment to professionalism during her distinguished career as Secretary/Treasurer of the American Association of Zoo Keepers for the past 29 years. The Association especially recognizes her dedication to helping all members of the Association with personalized and professional service.

In 1984 when Barbara Manspeaker took over as AAZK Administrative Secretary things were very different from how the office now operates. She inherited six small file boxes filled with 3 x 5 inch index cards that were the membership record keeping system at the time. It wasn't until she had been there over a year before the Association took the plunge, secured a loan from a local Topeka bank, and purchased the first computer equipment for managing AAZK business and producing *Animal Keepers' Forum*.

To say that Barb's job was one of "multi-tasking" would be an understatement. As the Association grew over the years, Barb's list of duties expanded in response to new programs and policies established by the Board of Directors. A partial list of her responsibilities would include: processing all memberships, updating all address changes as needed, keeping all of AAZK's financial books and paying bills, working with Patty Pearthree on Bowling for Rhinos financials, helping keepers interested in forming an AAZK Chapter through the chartering process, working with the IRS and other government agencies to make sure AAZK was in compliance with all regulations to maintain its nonprofit 501c(3) status, filing taxes, sending out the monthly international and Canadian issues of *AKF*, annually re-chartering all of the Association's 75+ Chapters (currently 96) that included filing for each Chapter with the Internal Revenue Service, packaging and mailing orders for everything from AAZK conference proceedings and special subject publications to logo sweatshirts, hats, etc. At conference time Barb is the one who packages up all the items to be sent to the meeting site, and for a number of years was also one of those who manned the AAZK table in the exhibitor's room. Barb's job has many aspects and she performs them all with great competence and dedication.

If you ever had occasion to call the AAZK Office, you would likely hear "American Association of Zoo Keepers, this is Barbara. May I help you?" Barb excels at member services—always going the extra mile to answer a question, seek out a resource, or help a member with a problem.

In recognition of her service to the Association, especially in coordinating daily management of AAZK Chapters in North America, from this date forward, acknowledgement of excellence in AAZK Chapter performance shall be recognized and bestowed in her name as the "Barbara Manspeaker AAZK Chapter of the Year Award".



Patty Pearthree

Patty's love and dedication for wildlife started as a small girl and continues today as the AAZK Bowling For Rhinos Program Manager and leader of zoo keeper safaris to Lewa Wildlife Conservancy. She has a BS in Zoology from Michigan State and a Masters in Environmental Science from Indiana University where she studied wildlife habitat sustainability while at Lewa Wildlife Conservancy over the summer session. She started her zoo keeping career as an intern at Brookfield Zoo and while attending Santa Fe College's zoology program at their teaching zoo. She became a professional zoo keeper in 1987 at the Indianapolis Zoo and has been an AAZK member ever since.

Her dedication to AAZK's Bowling For Rhinos flourished when she won the first BFR zoo keeper trip to Lewa Wildlife Conservancy in 1991, which at the time was a small 10,000 acre area protected by a few dedicated conservationists with a dream. She shared that dream and volunteered to be the national AAZK BFR Coordinator and not only helped local AAZK Chapters coordinate their BFR efforts for zoos across the states, but also represented AAZK in meetings with Lewa and expanded the support to Indonesia after visiting Ujung Kulon National Park in 1994 and working with the International Rhino Foundation. AAZK's BFR has raised over \$4.6 million USD since it began in 1990 and Patty continues to speak at AAZK's annual conference and share all the goodness the BFR volunteers have enabled at Lewa, Ujung Kulon and Way Kambas.

In 1998 she championed the "zoo keeper safaris" negotiating great discounts for zoo groups visiting Lewa Wildlife Conservancy where keepers, volunteers and their friends & families can visit and actually spend time observing the East African wildlife's behaviors *in situ* and visit the community efforts Lewa champions. Many of the keepers & friends have also been smitten by the great conservation efforts in and around Lewa and have become local champions for their AAZK Chapters' BFR

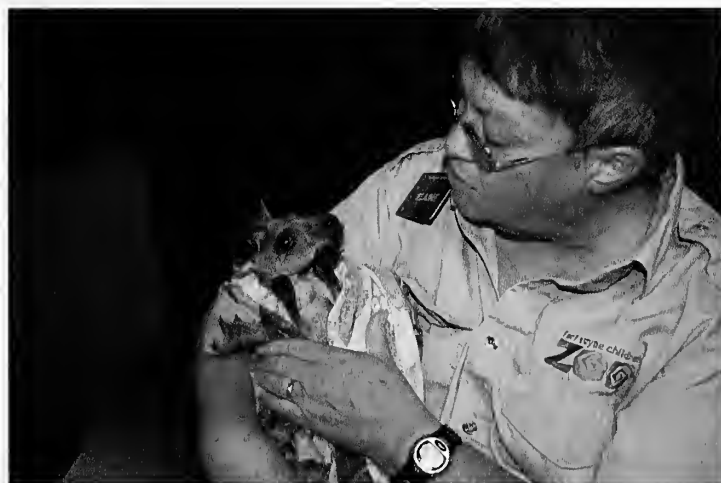


fundraisers, and friends and family have become supporters. She has been to Lewa 25 times.

Patty left her keeper career with the birth of her first son, now 17, and instead became full-time home manager, BFR Coordinator, PTA, Scouts and Band volunteer, wildlife photographer and professional pet sitter. She spends her time helping others near and far, and spreads the love of wildlife habitat conservation to all she encounters. Her husband often says "she'd rather see a baby critter than a human one", I guess that's what makes her such a dedicated conservationist.

Elaine Kirchner

Elaine Kirchner began her 27-year zoo keeping career at the Ft. Wayne Children's Zoo in 1986 and shortly thereafter joined AAZK. She has focused on extending her knowledge and expertise of all Australian species while serving as mentor to zoo keepers just starting in the field. She could be counted on to lead the Australasia rap sessions at numerous AAZK National Conferences and was always the first to glean and share new information from *in-situ* conservationists and others working with these unique taxa. She uses knowledge she has gained to benefit animals under her care. Ft. Wayne Children's zoo has had 100 grey kangaroos born there and a remarkable 86% survived to their first birthday. Elaine and her staff were one of the first to successfully breed and reproduce the striped possum. She has successfully managed a diverse collection of Australian species such as: Echidna, Kowari, Tiger quoll, Tasmanian devil, Common wombat, Striped possum, Sugar glider, Brush tailed rat-kangaroo, Matschie's tree kangaroo, Tammar wallaby, Eastern Grey kangaroo, Parma wallaby, Yellow footed rock wallaby, Beaver rat, Seba's short tailed bat, Jamaican fruit bat



and Dingos. She has been seen on the grounds wearing a pouch with a joey that required some special care.

In 2000 she became the studbook keeper of the Eastern and Western Grey Kangaroo and continued to contribute to the species husbandry and knowledge database. She was asked to serve on the Monotreme and Marsupial TAG Steering Committee in 2008 and became its chair in 2010. She is also responsible for creating and editing the regional collection plan for the TAG.

"Pouches, Puggles and Embryonic Diapause", "Reaching out to the Youngsters" and "Whose Beach is It?" were papers presented at AAZK National Conferences and the International Congress of Zookeeping.

Elaine volunteered to Chair the newly formed Safety committee and waded through USDA and AZA regulations to establish a set of guidelines and criteria for the institution. She is always there to help when managers need something done. She shares her passion with youths through a reading program and spends time with them answering questions in classrooms. Her activity and involvement in AAZK is shown in her support of the organization and its members who strive to improve themselves on a daily basis.

Elaine has been the consummate professional zoo keeper throughout her distinguished career.

Andy Henderson



Andrew (Andy) Henderson began his 31-year zoo career in 1981 at the Lincoln Park Zoo where he worked as a keeper in nearly every area and was promoted to Area supervisor of Primates in 1995. One of his numerous achievements was his role in the design of the Regenstein Center for African apes and the state-of-the-art facility stands as a living testament to his professional expertise, ingenuity and professional influence. At Lincoln Park Zoo he served on the Safety Committee and was an Emergency Weapons Team Deputy.

In 2007 he became the Primate Team Animal Care Supervisor at Utah's Hogle Zoo and served on the Animal Welfare, Science Review, and Behavioral Husbandry Committees, the Emergency Response Team, and Strategic and Master Planning process. He helped with the design of the Rocky Shores exhibit which opened in 2012.

Andy served on the New World Primate TAG Steering Committee, was the Studbook Keeper and Population Manager for the Bolivian Gray Titi Monkey, under the Ape TAG he served on consulting teams for gorilla hand-rearing, chimp hand-rearing, Gorilla SSP, and the Gorilla Behavioral Advisory Group, Birth Management Committee. He also supported *in-situ* conservation initiatives including the Lewa Wildlife conservancy and work with Jane Goodall.

Andy was an AAZK National Board Member from 2005-2007, Lincoln Park Chapter President, Keeper Accommodation List Coordinator, organized 12 BFR events, participated in BFR each year and attended nearly 20 conferences, and was active in the International Congress on Zookeeping. He chaired the annual Pool Tournament, which funds helped send keepers to conferences or went to conservation funds. He was the driving force to host the 2006 National Conference at Lincoln Park Zoo and was on the Host Planning committee for the 2008 National Conference at Utah's Hogle Zoo. He co-authored the "Longitudinal Study of Delayed Reproductive Success in a Pair of White-cheeked Gibbons (*Hylobates leucogenys*)" and authored "Rhinos: Their Decline, Current Populations, Genetic Demographics and Conservation Plan.

Andy had a pivotal role in zoo keepers careers and lives with his contagious enthusiasm for his work, a passion for sharing that enthusiasm with others and his skill for guiding others to become the best keeper that they could be. There is no greater gift a zoo keeper can give to their profession than to inspire the next generation of keepers, thereby ensuring that their work will be carried on even after they themselves leave the profession. Andy achieved this to a truly immeasurable degree; there will never be another like him.

Lutz Ruhe Meritorious Achievement-Professional of the Year Award

Kenton Kerns, Smithsonian's National Zoo. This award is in recognition of his outstanding commitment to professionalism during his distinguished career as a zoo keeper. Specially noted is his work with the Golden Lion Tamarin, research projects, publishing articles, mentoring interns, and serving on the Boards of Save the Golden Lion Tamarin and Chopsticks for Salamanders and the Zoo's Safety Committee. Also noted is his service on AAZK National and Chapter levels, developing the National Capital AAZK in DEPTH seminar series and the NCAAZK Professional Development Committee, and as Chapter President, dramatically increasing membership. He embodies the AAZK mission to advance animal care, promote public awareness, enhance professional development and contribute to local and global conservation.



Jean M. Hromadka Excellence in Animal Care Award

NeoMonks Team, Jessica Grote, Samantha Smith, Jeremiah Cummins, Jennifer Hickman, Michelle Jordan, Denver Zoo. This award is based on the NeoMonks Team of five keepers which have excelled in the areas of animal husbandry, behavior management, teen volunteer and internship programs, and public education. Also noted was their combined activities and participation in professional development, publishing papers, and the Bison Conservation Project.



Lee Houts Excellence in Enrichment Award

Carrie Felsher, St. Louis Zoo, for preparing the annual report of enrichment projects, gives enrichment presentations, publishes articles, and provides leadership for the zoo's annual Enrichment Day. She facilitates multi-department communication and assists enrichment representatives with their area programs including action planning initiatives and Progressively Challenging Enrichment Projects for animals, and promotes professional opportunities for the Enrichment Committee.



NPZ Enrichment & Training Steering Committee - Stacy Tabellario, Rachel Metz, Heather Baskett, Judy Tasse, Smithsonian's National Zoo, for creating a Giving Tree fund raiser for enrichment items, producing an Enrichment Wish List Brochure and an Enrichment Giving Tree. Encouraging participation from many zoo units, they organized the zoo's first Enrichment Day with five hands-on stations and 39 special enrichment demonstrations. The committee initiated bimonthly "Enrichment and Training Did You Know" tips and developed a monthly enrichment action plan.



Certificate of Merit for Zoo Keeper Education Award

Greater Houston Chapter AAZK, Houston Zoo, for initiating a clinic program to supplement keeper education at the Houston Zoo. Clinic topics rotate each year and are facilitated by subject matter experts at the zoo.



National Capital Chapter, Smithsonian's National Zoo, for the Professional Development Committee which provides three types of professional development programs to all zoo staff and volunteers. In DEPTH is a semimonthly brown bag lunch series with a variety of topics, short one day seminars and the long courses, Behavior Research Methods and Population Management, detailing a topic taught by a subject matter expert. Besides sending two individuals to AAZK National Conferences, the Chapter also established a Travel Reimbursement Grant for keepers to attend professional conferences or training.



Certificate of Recognition

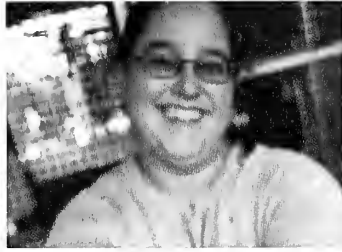
- **Denise Wagner**, Phoenix Zoo, for serving on the AAZK Board of Directors
- **NP Training Works**, CypherWorx, for their development of AAZK Online
- **San Diego Zoo Global Academy**, San Diego Zoo, for the Academy's help and support in making their online learning content available to our Collaborative Learning Environment
- **Sean Walcott**, SeaWorld San Diego, for his work on developing and maintaining AAZK social media
- **Bill Konstant**, International Rhino Foundation, for his support for Bowling for Rhinos and his seven Chapters tour
- **Jacque Blessington**, Kansas City Zoo, for her time spent as Membership Resources Chair
- **Julie Felton**, Roanoke Valley AAZK Chapter, Mill Mountain Zoo, for designing the 2014 Bowling for Rhinos national t-shirt.
- **Gisela Wiggins**, North Carolina Zoo, 2013 National AAZK Conference Co-Chair
- **Elizabeth McChesney**, North Carolina Zoo, 2013 National AAZK Conference Co-Chair
- **Brigitte Thompson**, North Carolina Zoo, 2013 National AAZK Conference Co-Chair

Certificate of Merit in Conservation Award

Lauren Augustine, Smithsonian's National Zoo, for developing Chopsticks for Salamanders and partnering with AAZK Chapters who use CFS as a Chapter fundraiser. The program offers an annual grant for salamander research. She also assists with conservation updates for the *Animal Keeper's Forum* and serves as the Chapter Local Conservation Coordinator.



Mollie Coym, Houston Zoo, for developing interpretive materials and activities to message the conservation efforts of the Houston Zoo and other partners to save the Attwater Prairie Chicken from extinction. She showcases these conservation displays to zoo visitors, local schools and environmental fairs.



Courtney Elizabeth Dunn, University of Central Arkansas, Natural Tiger Sanctuary, for the design and implementation of research projects in the area of tiger vocal communication and has helped connect the sanctuary with field organizations that monitor wild tiger populations. She also prepares the conservation labs at the University.



Nikii Finch-Morales, CuriOdyssey, for designing and implementing the Pacific Tree Frog Garden Habitat Project to educate visitors on tree frog life cycles and how to create amphibian habitats in their own yards. She also created the Bay Area Frog Watch USA Chapter.



Dave Johnson, Denver Zoological Foundation, for creating Team Nepalorado to help protect the Greater One-Horned Rhinoceros, as well as other species in Nepal. Fundraising has provided motorbikes for Chitwan National Park's anti-poaching units, a solar powered electric fence and funds towards a future veterinary hospital. The proceeds of his children's book "The Elephants of Denver" all go toward his work in Nepal.



Chawna Schuette, St. Louis Zoo, for her integral role in research and *in-situ* and *ex-situ* conservation efforts of the Ozark Hellbender. She is the primary hellbender keeper in the Saint Louis Zoo's WildCare Institute Ron Goellner Center for Hellbender Conservation and aids in collaboration with USFWS and Missouri Department of Conservation. She also had the world's first successful captive breeding of Ozark Hellbenders.

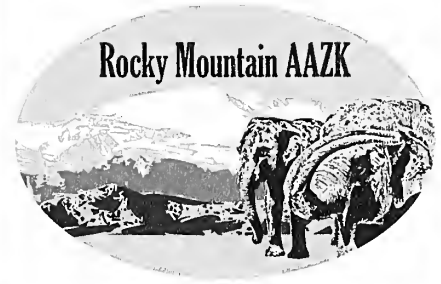


Jennifer Stoddard, Reid Park Zoo, for creating a Zoo Team Conservation Facebook page and supervising their *in-situ* conservation efforts and fundraising. She also has integrated positive climate change messages into every public presentation at the zoo.



Chapter of the Year

Rocky Mountain AAZK Chapter,
Denver Zoo



Distinguished Service Award

North Carolina Chapter of AAZK,
2013 AAZK National Conference Host Chapter

Certificate of Appreciation

North Carolina Zoological Park, 2013 AAZK
National Conference Host Institution

Christina Dembiec, for serving as the
Behavioral Husbandry Chair



And the Winner Is...

AKF Awards

congratulations to all our winners!



Susan D. Chan Authors of the Year

Bubba: A Sulcata on a Skateboard

By Alison Mott, Registered Veterinary Technician
Kate Gore, Primary Reptile Keeper
Sacramento Zoological Society, Sacramento, Ca.

Excellence in Journalism Awards

From Fear to Friend: Building Trust Between Keeper and Animal Through Training

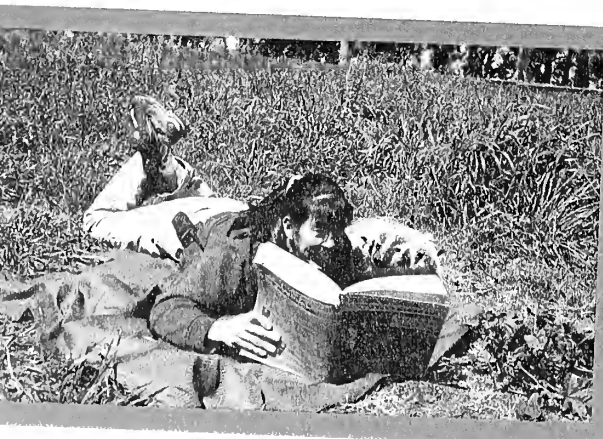
Eunice Hui, Lead Keeper, and Molly Feldman,
Keeper Apprentice, CuriOdyssey, San Mateo, CA

Interspecific aggression in a mixed-species exhibit of ungulates and birds.

Nolan Schlichter, Primate/Ungulate Keeper
Great Plains Zoo and Delbridge Museum of
Natural History, Sioux Falls, South Dakota

Advances in Waterfowl Training and Enrichment at Disney's Animal Kingdom®

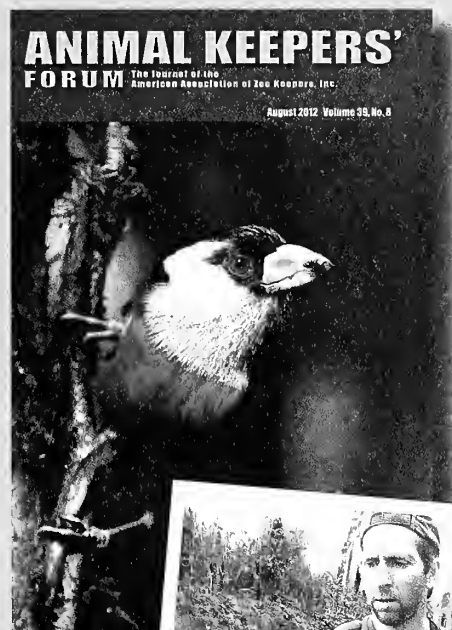
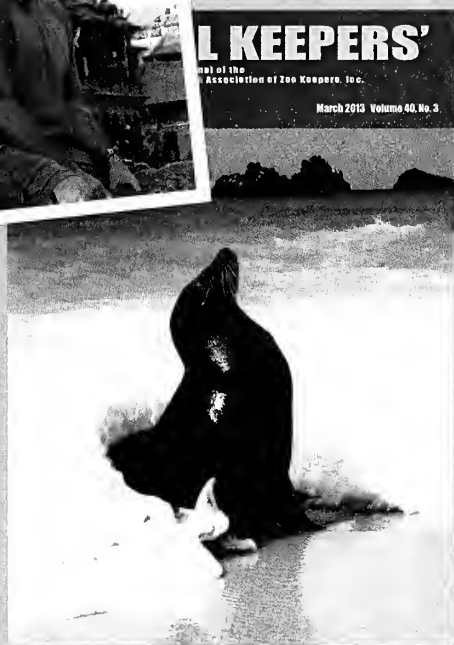
Stacy Johnson, Animal Keeper
Disney's Animal Kingdom®
Lake Buena Vista, Florida



2013 AKF Cover Photography Awards



"Sea Lion"
March 2013 • Dave Johnson
Denver Zoo



"Toucan Barbet"
August 2012 • Tim Krynak
Cleveland Metroparks

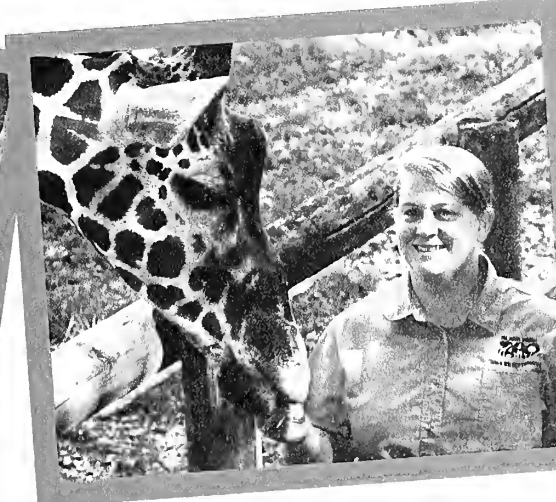


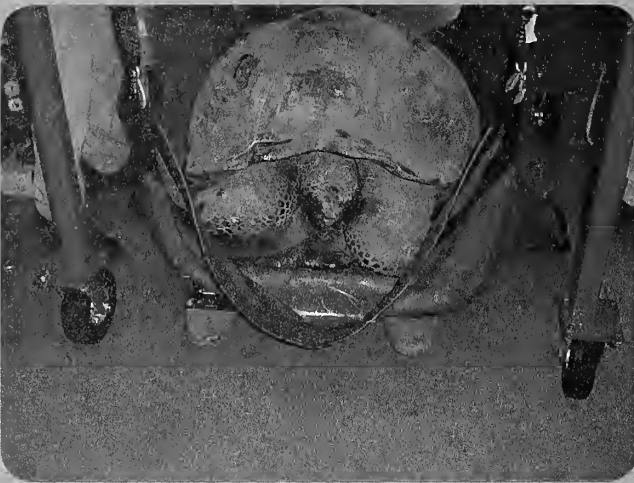
*What we have learned from
a shifty ibis (shift training
for sacred ibis)*

Rebecca Heisler,
River's Edge Senior Keeper
Saint Louis Zoo, Saint Louis, MO

*We're All in This Together: The Evolution of Avian
Management in African Mixed-Species Exhibits
at Blank Park Zoo*

Lisa Ashburn, Large Mammal Area Supervisor
Jenni Dyar, Avian and Terrestrial Reptile Area Supervisor
Blank Park Zoo, Des Moines, IA





TOOLS of the Trade:

A Closer Look at Animal Management and Restraint in a Zoo Hospital Setting

Kirstin Clapham, Senior Hospital Keeper
San Diego Zoo, San Diego, CA

Introduction

Providing veterinary care to the San Diego Zoo's diverse collection of mammals, birds and reptiles requires the hospital staff to be prepared to handle any type of animal in various scenarios. Every animal in our collection gets routine physical exams and vaccinations by either coming up to the hospital or by having our hospital staff come to them. Some animals have extended stays at our facility. They could be new and entering our collection through quarantine, patients who have an illness or injury, others could be "of a certain age" and need some extra attention, and some might just seem to be a little "off" and are kept at the hospital for closer observation. The wide range of animals varies almost as much as the reasons for their visit.

Zoo hospital keepers are often called upon to help hold, move or catch the animals so that they can be examined, treated or anesthetized. We have many tricks up our sleeves and many tools available to safely assist the veterinarians and technicians in getting the animals ready for their procedure. I will concentrate on communication, one of the most important "Tools of the Trade" used at the San Diego Zoo's Jennings Center for Zoological Medicine.

Planning a safe and successful restraint

To restrict an animal's activity or restrain an animal in any way is a responsibility that should not be taken lightly. Each time an animal is restrained, a "pre-procedure discussion" should occur. First and foremost, the safety of both the animal and those people in direct contact with that animal needs to be top priority.

Communication is key

For the safety of the animal, yourself and others, be mindful of what the actual procedure will entail. Revisit past procedures, anticipate potential problems and discuss how the animal might react. If you lack experience in handling a given species, or a specific patient, get input from other keepers who do have the experience. Gather as much information as necessary to feel comfortable and remember that it's always better to be safe than sorry!

1. Questions we should ask ourselves before engaging an animal:
 - Why is it here? What is wrong with it? (Example: Be aware of specific location of injury – eye, leg, wing?)
 - What area of the zoo is it from? (Example: Is it from a large mixed-species enclosure? Or is it normally housed alone in a smaller area?)
 - What is its age, temperament, gender?
 - How can the task be accomplished in the least amount of time and with the least amount of stress to the animal?
 - Do I need backup? If so, how many people do I need?
 - Assign duties! Are all the people involved in the restraint ready?
 - Who has what? Shifting and squeezing – who will be operating doors, gates, push boards?
 - Where/what space will the induction (darting/injecting) of the animal occur?
 - If back-up restraint is needed, who will be holding the head/feet, etc?
 - Is there a clear path to move the restrained/anesthetized animal to the proper location? (Example: Treatment, Radiology Room or Surgery)



- Does the animal need to be weighed? If so, can it be weighed before induction? If not, is the scale/weight platform prepared?
- Is the animal small enough for one or two people to hand-carry or will a tarp and multiple people be needed?

2. Come up with a plan

Make a plan, and then make a backup plan.

Always have a Plan B and a “point person” to call off the procedure if it isn’t going as well as desired.

If things are not going well, call it off, back out and regroup. Start over or just retry for another day.

Set yourself up to succeed by isolating the animal when possible. Make sure the area is “secure” before attempting to move, catch or restrain. In this instance, “secure” means no superfluous people around, doors and “safety area” closed and/or locked, windows covered, etc.

Focus on the animal. Do not hesitate once you’ve started your capture attempt. Faster is better, don’t prolong attempt for fear of tiring, injuring or over-stressing the animal.

When in with an animal, have an obvious way out; plan your escape route, especially upon recovery.

Sometimes there are things that should NOT be done for safety reasons - animal or people safety.

Don’t be afraid to speak up if you’re not comfortable with the plan.

3. Anticipate potential problems with the following issues/other things to consider.

- Health status: How sick is the animal? Is it stressed, agitated, depressed? Is its breathing compromised? (Have O2 ready)
- Behavior: How will the animal respond to being captured and restrained? How has it responded recently? Flighty or aggressive? Does it jump, hit the wall, run toward or away from you, try to get out of the door, tuck or hunker down? As it’s feeling better, is it getting feistier? Always keep in mind that animals can be more unpredictable if stressed or frightened/isolated or relocated.

Photos (left to right)

- A Galapagos tortoise rides safely toward its veterinary exam.
- It takes a team to move “Blackie” the bear on the day of his annual examination.
- The Hospital Staff at San Diego Zoo prepare to move the hoofstock lift into position.
- A mandrill is carried by stretcher to its examination.
- Crate training and positive reinforcement can make a trip to the vet much more tolerable for the zoo’s animal collection.

- Thermoregulation: Most commonly hyperthermia: Assess the potential for the animal to overheat (certain species more susceptible). Consider time of day, season and location of procedure. If outside, are we working in the sun? If possible, move procedures into the shade, do early in the day, have fans and/or ice ready, keep animal quiet and calm during prep.

4. Restraint and Induction

Consider the location of the planned restraint procedure (and recovery) of the animal. Provide equipment and facilities appropriate for the individual animal and the specific procedure.

Examples of a typical capture/restraint would be:

For mammals: Mask down using gas anesthetic with animal in hand or net.

Hand inject in a squeeze apparatus, crate or net.

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When it comes to handling animals, teamwork is just as important as having the proper tools.

5. Once the animal is induced it is not over

When the animal shows signs of being sedated, communicate what you will be doing.

Before going in with a "sedated" animal, test the animal to see if it is really ready to be handled/moved.

Testing the status of an animal's sedation ranges from making sounds (clapping, whistles) to physically touching them (with an extension handle or your hand). Watch for limb movement, ear twitches and eye blinks.

Test the animal again, and then approach with caution following

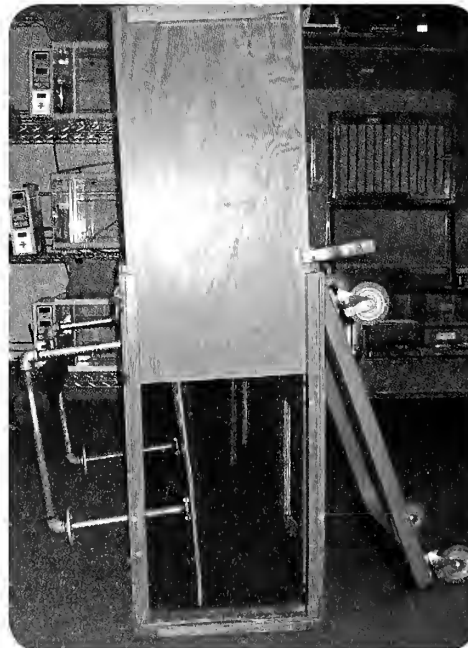
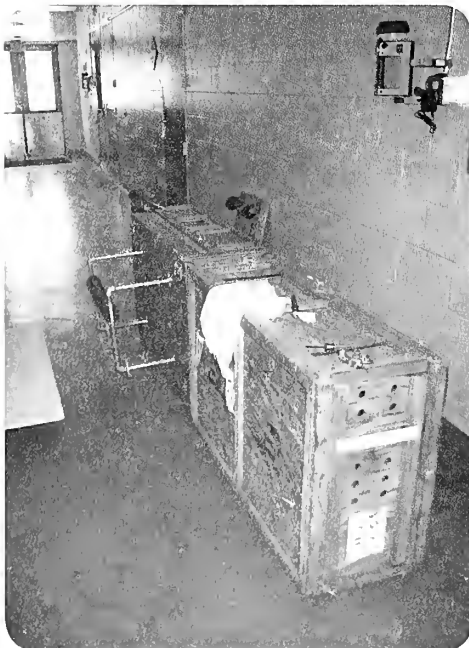
your veterinarian's guidance.

Do not relax once the animal is down, it is still unpredictable. Stay with the animal until you are sure it is "on the table" and stable. Confirm with the veterinarian/techs before leaving the area.

6. Examples of recovery would be:

Inform/discuss with the veterinarian/tech where the animal will be going once the procedure is completed. Do you need to set up a crate, a special room, heat, hay? Set up (all potential) recovery sites ASAP.

Photos left to right: (Left) A squeeze and crate for small hoofstock. (Center) An inside view of the hoofstock squeeze. (Right) More "Tools of the Trade" - various sizes and types of nets and gloves.





The successful crating and vet procedure for a red panda.

Recover/wake up in a (confined and quiet) crate - with or without a heat source or fan, when necessary.

Stretch out in a larger area like a portable squeeze or even a hallway squeeze - once stable and awake then move to its transport crate. Certain smaller animals might do better recovering in hand (with or without a towel/burrito or "blanket"). Other patients, who have a history of being calm on recovery, might just be placed back in their "bed".

With some of the larger animals, the only option would be to be recovered in a trailer or their bedroom.

Check the animal frequently while it recovers until it is stable

and awake, standing and back to "normal". Follow through with observation and care until fully recovered, sharing information with the veterinarian.

To conclude, I'd like to reinforce the importance of sharing information with your coworkers about the animals under your care. At the San Diego Zoo's Hospital, the health and well-being of our patients is paramount. The knowledge and use of proper restraint tools paired with safe practices, good communication, preparation and teamwork aid in making an animal procedure safe and successful. There are no typical days for a hospital keeper but there sure are many interesting ones!

Operant Conditioning vs. Restraint: Role of primary keepers in the process vs. hospital keepers

Through their daily interactions, primary keepers build trust and form bonds with the animals under their care. Hospital keepers, on the other hand, have limited time to establish a rapport with animals during their quarantine period or medical stays. Establishing a training routine where an animal comfortably shifts from room to room, calmly approaches keepers, accepts food by hand, or enters a crate benefits everyone involved. With these behaviors established, the baton of a healthy management protocol can be passed easily between grounds and hospital keepers, making the animal's transition from one area to another a smooth one.

The goal of training medical behaviors is to make any interaction or procedure less stressful. Incorporating scale and crate training into an animal's daily routine, and whenever possible, working on squeeze and syringe training, aid in the veterinary care process in a non-invasive way. When primary keepers have the time and the means to train an animal and to make these behaviors part of the daily routine, getting a weight, taking a trip to the hospital or getting an injection is a non-event. When there

is a consistent history of training an animal, valuable behaviors are retained and repeatable. Even after a "negative" experience such as a hospital visit or anesthetic procedure, the animal quickly settles back in to its routine.

Primary keepers, and the behaviors they've established with their animal, play a key role in how that animal is approached for a veterinary procedure. If an animal crates well, then the plan would be to bring the animal to the hospital in a crate or trailer. If an animal accepts injections well, then a vaccination or anesthetic agent can be administered by our vet staff coming to them for a "house call". If neither of these behaviors have been well-established, then an animal might have to be darted in their exhibit which can be stressful and risky.

If an animal is at the hospital for an extended stay, their behavior might be different from their "normal" behavior due to an illness or injury. But once they're "back on their feet", shifting and crating become part of their routine again. Although primary keepers don't usually have much involvement with the animal while it is at the hospital, the behaviors they've established through training and operant conditioning have prepared the animal well for adapting to their new environment, aid in a smoother recovery and quicker return to grounds.



The Second Life of a Boat Bumper: Utilizing Available Resources to Increase Enrichment Opportunities

Part 2

Pattie Beaven, Elephant Keeper, Woodland Park Zoo, Seattle, WA
Elise Newman, Keeper, Binghamton Zoo at Ross Park, Binghamton, NY

*Ronde meets a mock penguin "friend" during a winter event.
Photo by Elise Newman/Binghamton Zoo.*

*Your source for enrichment ideas,
support, data and inspiration!*

ENRICHMENT OPTIONS EDITORS:

Julie Hartell-DeNardo, St. Louis Zoo;

Ric Kotarsky, Tulsa Zoo;

Casey Plummer, Caldwell Zoo

(Continued from last month's Enrichment Options Column)

As a zoo keeper, Pattie loves finding something that interests and appropriately challenges her animals, and after discovering the boat bumpers' potential with other animals, she decided to share this idea with the zoo community at large. At the 2012 AAZK National Conference in Syracuse, she made a presentation on re-using everyday items as enrichment for elephants.

One of the great benefits of attending conferences is making new contacts, and Pattie was elated to get in contact with another zoo keeper interested in utilizing the boat bumpers. Elise from Binghamton Zoo at Ross Park, on the other side of the country, started using the bumpers for her animals as well.

Binghamton Zoo at Ross Park has expanded upon the versatility of Pattie's enrichment idea by increasing the number of species offered this enrichment and changing the enrichment methods. Prolonging feeding time to increase mental stimulation is a challenge with all species, so that was a priority with the boat bumper enrichment at the Binghamton Zoo.

Hanafin Marine donated boat bumpers in a variety of sizes and colors, which were sterilized overnight in a dilute bleach solution. Elise works mainly with small mammals, so those were the animals with which she started the enrichment program. Mimicking Pattie's dolphin toys, she cut a hole in one boat bumper, stuffed it with fish and offered it to a pair of North American river otters. They pulled it into their pool and took turns batting it around and swimming on their backs with the bumper balanced on their abdomens. The male, Leroy, even figured out that submerging the boat bumper and



Guinea hog Annabelle now spends so long prying yam pieces out of the boat bumper that she has less time to be aggressive towards the keepers. Photo by Elise Newman/Binghamton Zoo.

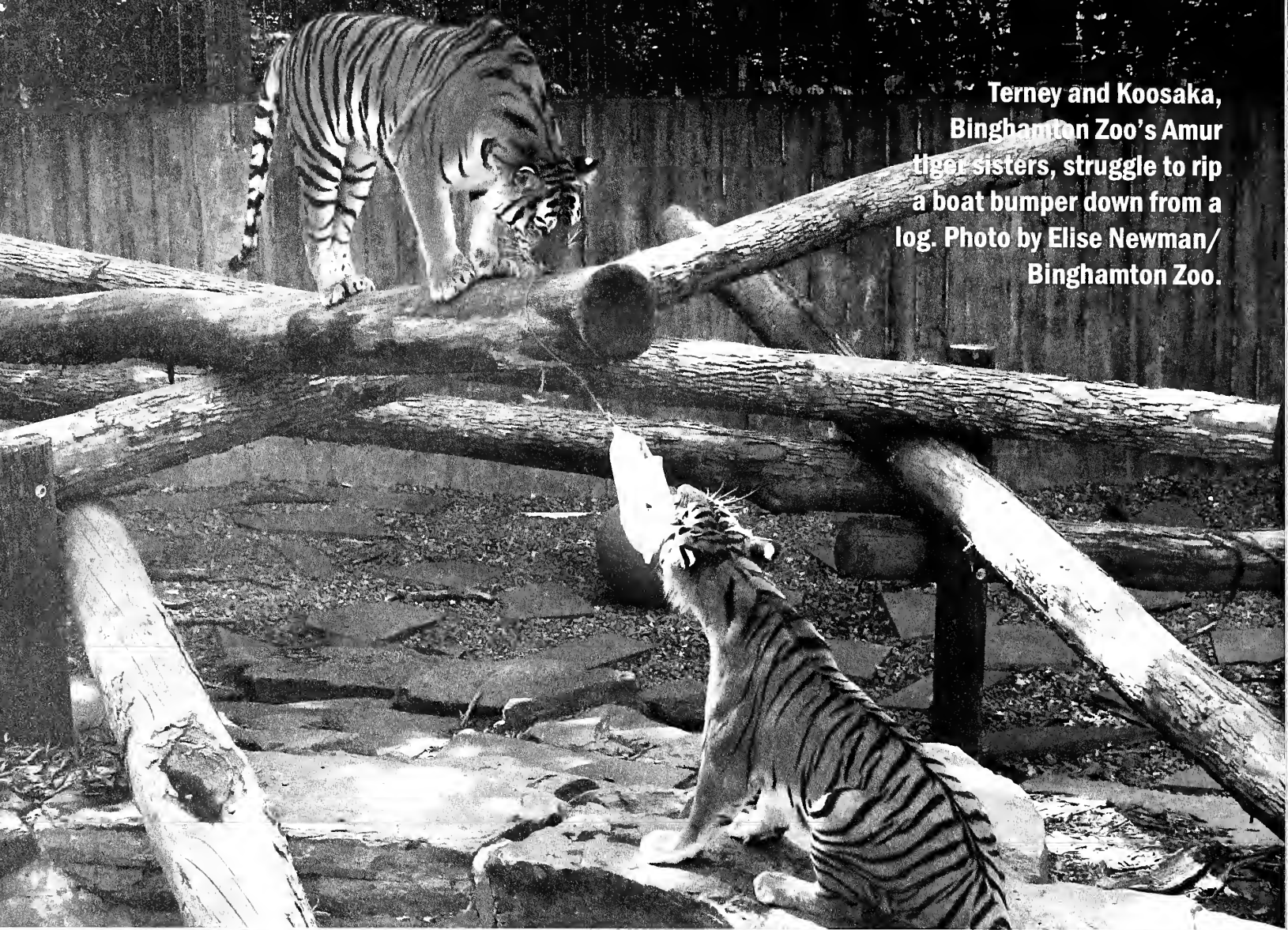
holding it down caused the fish to float up out of the hole for easy accessibility! After seeing the success of this aquatic feeder, Elise cut holes in another boat bumper and offered it full of yams to two overweight Guinea hogs. Hogs Annabelle and Polly have been on a diet recently to decrease health problems associated with obesity. As a result, they have become anxious and aggressive.



Mei Li enjoys breakfast. Photo by Elise Newman/Binghamton Zoo.



Leroy and Elaine wrestle with a boat bumper in their pool, trying to get the fish hidden inside. Photo by Elise Newman/Binghamton Zoo.



Terney and Koosaka, Binghamton Zoo's Amur tiger sisters, struggle to rip a boat bumper down from a log. Photo by Elise Newman/Binghamton Zoo.

The boat bumper prolongs feeding time and decreases boredom, resulting in decreased aggression.

Subsequently, Elise created a hanging, arboreal feeder for Binghamton's red panda pair, Mei Li and Xiao Li. Previously, they ate their morning bamboo draped over propping or offered on the ground, neither of which encourages natural foraging behaviors. By drilling small holes in a boat bumper and stuffing it full of bamboo stalks, the pandas eat their breakfast as they would in the wild. In fact, this feeding technique actually decreases the amount of time female Mei Li spends stereotypically pacing each morning. Elise and other keepers also use boat bumpers stuffed with grapes as arboreal feeders for lemurs. Lastly, Elise offered a boat bumper as a make-shift tree-trunk to a pair of golden lion tamarins, so they could utilize micromanipulation behaviors to pick live crickets and mealworms out of the "tree cavity" as they would in South American rainforests.

As Pattie demonstrated with her elephants, boat bumpers are not restricted to animals that "play nicely," as are most enrichment objects. Binghamton Zoo's Amur tigers and leopard, gray wolves, and North American cougar do not have a lot to play with because they destroy boomer balls, feeders, and anything that isn't nailed down. Boat bumpers actually encourage natural shredding and tearing behaviors to get at the delicious meat, fish, and catnip treats hidden inside. The keepers don't mind that the toys get

A simple idea to change things with elephants on one side of the country inspired a zoo on the opposite coast to improve animal welfare.

destroyed because they are donated and easily replaceable.

Additionally, the boat bumpers do not have to be used as puzzle feeders or even presented as boat bumpers. Binghamton Zoo is planning to turn two of the boat bumpers into nest boxes for burrowing owls and green aracaris. Elise will cut a hole into the bumper, turning the inside into a nest cavity, and she will make a cylinder equal to the diameter of the bumper out of heavy gauge wire. The bumper will be attached to the wire and then large bark pieces will be secured to the wire using thin "tie wire." Once all of the bark is attached, the gaps will be filled with nontoxic expandable caulk or colored mortar mix. These nest boxes are economical, easy to clean, parasite-free, and reusable. Finally, the boat bumpers don't have to be just for animal entertainment;

the public gets a kick out of them too. Elise turned a boat bumper into a “mock penguin” with a little non-toxic paint and some cardboard. For special events, members of the public get to see the zoo’s African black-footed penguin colony interact with this “conspecific outsider.”

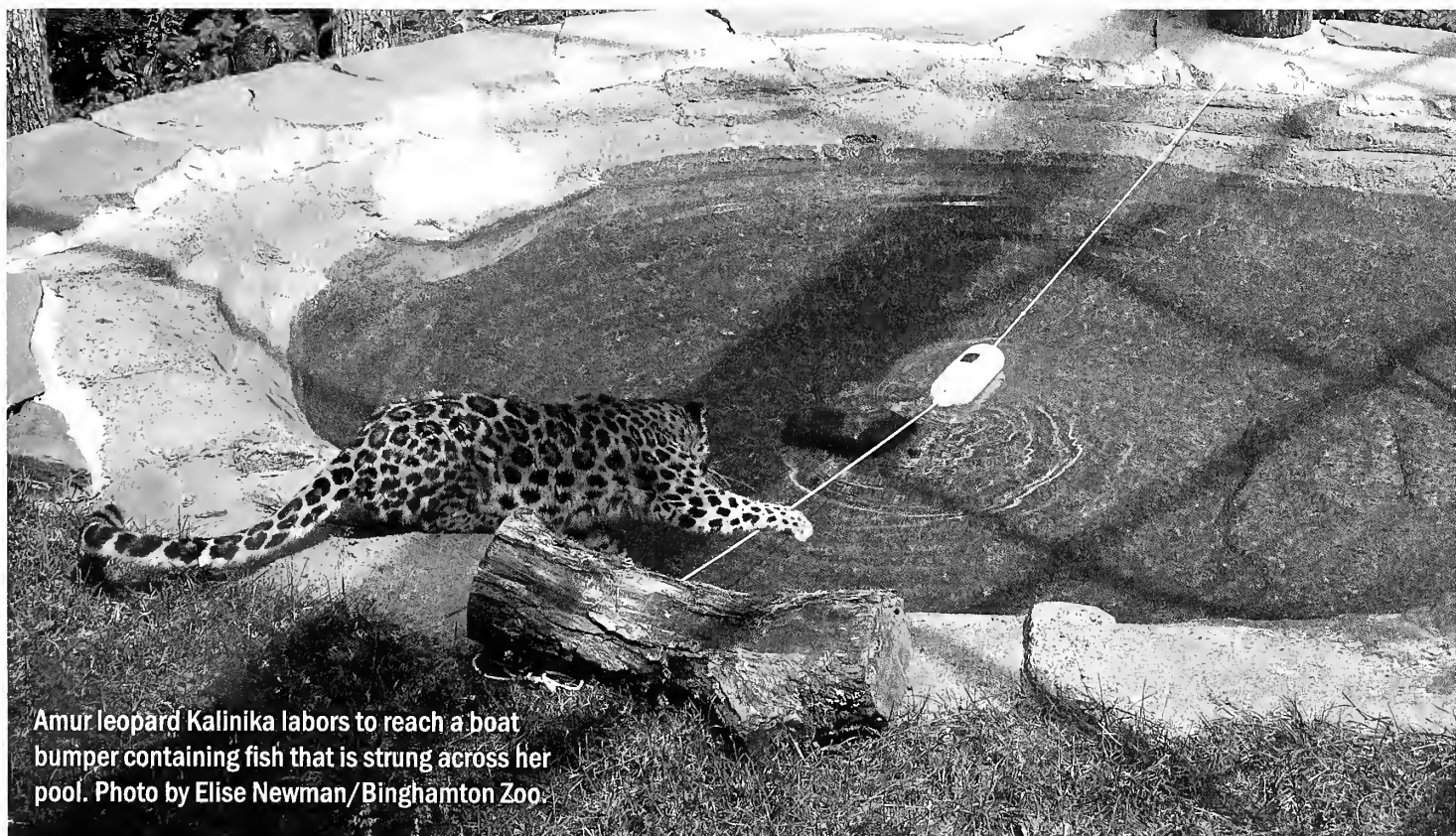
So, one man’s trash is an animal’s treasure. Pattie and Elise’s boat bumper ideas were incredibly successful using a variety of methods with elephants and other animals at two different zoos. A simple idea to change things with elephants on one side of the country inspired a zoo on the opposite coast to improve animal welfare. With this positive chain reaction, Pattie and Elise realized how important and inspiring it is to share ideas. We never imagined using boat bumpers would be so hugely successful, economical, and beneficial.

Next time you are contemplating new items to use for your animals, don’t forget to think outside the box, and never fear that your ideas will be too unorthodox. They can change not only your animals’ worlds, but the zoo community’s as well.

EO Editor’s Comments by Casey Plummer:

The exchange of ideas is one of the things that makes AAZK such a great organization. Not only was this idea shared at a conference, resulting in a zoo across the country utilizing it, but now it has been shared via the AKF and can be used by countless other members. Kudos to Pattie and Elise for working together on this bicoastal article! This particular EED encompasses two of my favorite things: innovative thinking and reusing “junk.” Not only does utilizing the boat bumpers give them a second purpose, they are being provided free of charge, making this EED both ecologically and economically friendly.

The elephant photos in last month’s *Enrichment Options* column were courtesy of Ryan Hawk, Woodland Park Zoo.



Amur leopard Kalinika labors to reach a boat bumper containing fish that is strung across her pool. Photo by Elise Newman/Binghamton Zoo.


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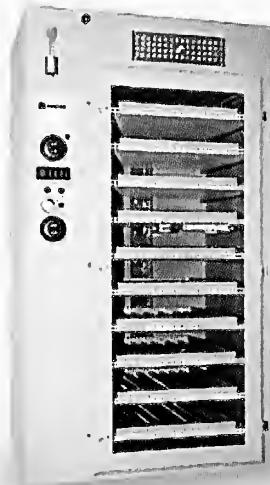
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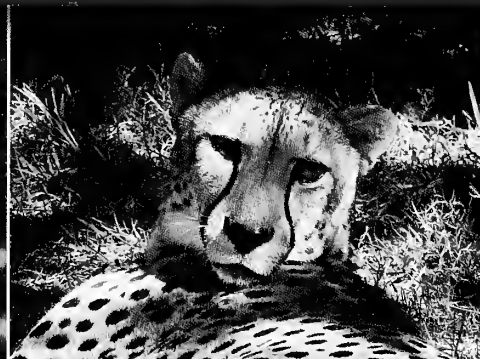


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